

Modify the following (modified text in blue):

66.3 Modifications to the reconciliation sublayer (RS) for P2P 10 Gb/s operation

66.3.1 Overview

This subclause specifies the 10 Gb/s RS for support of P2P subscriber access networks.

Add the following:

66.4 Modifications to the RS for P2MP 10 Gb/s operation

66.4.1 Overview

This subclause specifies the 10 Gb/s RS for support of P2MP subscriber access networks.

66.4.2 Functional specifications

The 10 Gb/s RS for P2MP subscriber access networks shall conform to the requirements of the 10 Gb/s RS specified in Clause 46 with the following exception: The 10 Gb/s RS for P2MP subscriber access networks may have the ability to transmit data regardless of whether the PHY has determined that a valid link has been established. The following are the detailed changes to Clause 46 in order to support this additional ability.

66.4.2.1 Link fault signaling

The description of the link fault signaling functional specification is changed to include the contribution of the new unidirectional_enable variable. The second paragraph of 46.3.4 is changed to read (~~striketroughs~~ show deleted text and underscores show inserted text):

Sublayers within the PHY are capable of detecting faults that render a link unreliable for communication. The nature of the P2MP allows for some of these fault conditions to be ignored. Upon recognition of a fault condition a PHY sublayer indicates Local Fault status on the data path. When this Local Fault status reaches an RS, the RS tests the unidirectional_enable variable. If this variable is FALSE, the RS stops sending MAC data, and continuously generates a Remote Fault status- Idle control characters on the transmit data path (possibly truncating a MAC frame being transmitted). If this variable is TRUE, the RS continues to allow the transmissions of MAC data. When Remote Fault status is received by an RS, the RS tests the unidirectional_enable variable. If this variable is FALSE, the RS stops sending MAC data, and continuously generates Idle control characters. If this variable is TRUE, the RS continues to allow the transmission of MAC data. When the RS no longer receives fault status messages, it returns to normal operation, sending MAC data.

66.4.2.2 Variables

Insert a new variable among those already described in 46.3.4.2:

unidirectional_enable

A control variable that enables the unidirectional mode of operation.

Values: FALSE; Unidirectional capability is not enabled

TRUE; Unidirectional capability is enabled

66.4.2.3 State Diagram

The description of what the RS outputs onto TXC<3:0> and TXD<31:0> is changed to include the contribution of the new unidirectional_enable variable. The lettered list of 46.3.4.3 is changed to read (~~striketroughs~~ show deleted text and underscores show inserted text):

a) link_fault = OK

The RS shall send MAC frames as requested through the PLS service interface. In the absence of MAC frames, the RS shall generate Idle control characters.

b) link_fault = Local Fault

If unidirectional_enable = FALSE, tThe RS shall continuously generate Idle control characters ~~Remote Fault Sequence ordered_sets~~.

If unidirectional_enable = TRUE, the RS shall send MAC frames as requested through the PLS service interface. In the absence of MAC frames, the RS shall generate Idle control characters.

c) link_fault = Remote Fault

If unidirectional_enable = FALSE, the RS shall continuously generate Idle control characters.

If unidirectional_enable = TRUE, the RS shall send MAC frames as requested through the PLS service interface. In the absence of MAC frames, the RS shall generate Idle control characters.

Changes to PICS:

Rename 66.4.4.4 (modified text in blue):

66.4.4.4 Extensions of the 10 Gb/s P2P RS

In 66.4.3, add item:

Item	Feature	Subclause	Value/Comment	Status	Support
*XP2MP	10 Gb/s P2MP operation	66	Device supports 10 Gb/s P2MP operation	O	Yes [] No []

Add the following:

66.4.4.5 Extensions of the 10 Gb/s P2MP RS

Item	Feature	Subclause	Value/Comment	Status	Support
PF1	Integrates 10 Gb/s P2MP RS	66.4.2	See Clause 46	PUNI * XP2MP:M	Yes []
PF2	link_fault = OK and MAC frames	66.4.2.3	RS services MAC frame transmission requests	PUNI * XP2MP:M	Yes [] No []
PF3	link_fault = OK and no MAC frames	66.4.2.3	In absence of MAC frames, RS transmits Idle control characters.	PUNI * XP2MP:M	Yes [] No []
PF4	link_fault = Local Fault and unidirectional_enable = FALSE	66.4.2.3	RS transmits continuous Idle control characters.	PUNI * XP2MP:M	Yes [] No []
PF5	link_fault = Local Fault and unidirectional_enable = TRUE and MAC frames	66.4.2.3	RS services MAC frame transmission requests.	PUNI * XP2MP:M	Yes [] No []
PF6	link_fault = Local Fault and unidirectional_enable = TRUE and no MAC frames	66.4.2.3	In absence of MAC frames, RS transmits Idle control characters.	PUNI * XP2MP:M	Yes [] No []
PF7	link_fault = Remote Fault and unidirectional_enable = FALSE	66.4.2.3	RS transmits continuous Idle control characters.	PUNI * XP2MP:M	Yes [] No []
PF8	link_fault = Remote Fault and unidirectional_enable = TRUE and no MAC frames	66.4.2.3	RS services MAC frame transmission requests.	PUNI * XP2MP:M	Yes [] No []
PF9	link_fault = Remote Fault and unidirectional_enable = TRUE and no MAC frames	66.4.2.3	In absence of MAC frames, RS transmits Idle control characters.	PUNI * XP2MP:M	Yes [] No []